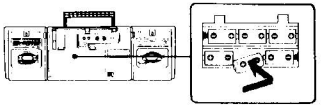
Power Sources

Batteries

Insert six size D (R20) batteries.

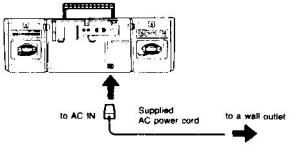


Note

- The unit cannot be operated on batteries when the AC power cord is connected to the unit.
- When DIRECTION indicator/OPR/BATT (operation/battery) indicator glows faintly, replace all the batteries.
- For critical recording, operating the unit on AC power is recommended.

House Current

Connect the supplied AC power cord to the AC IN jack.



Note

Use only the recommended AC power cord manufactured by Sony. Polarity of the plugs of other manufacturers may be different.

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 3.2-ohm loads, both channels driven, from 150–10,000 Hz; rated 1.8 W per channel minimum RMS power, with no more than 10% total harmonic distortion in AC operation.

Other specifications

Frequency range	FM: 87.6–108 MHz AM: 530–1,710 kHz
Recording system	4-track 2-channel stereo
Frequency response	80–8,000 Hz
Speakers	Two way Approx. 10 cm (4 inches) dia. woofer x 2 Approx. 2 cm (13/16 inch) dia. tweeter x2
Power output	2.1 W + 2.1 W (at 10% harmonic distortion) in DC operation (except for the U.S. model)
Input	CD/LINE IN jacks (stereo phono jacks) (2) Input impedance 47 kilohms Sensitivity 0.44 V
Output	Headphones jack (stereo minijack) for 8–300-ohm impedance headphones
Power requirements	120 V AC, 60 Hz
Battery life	9 V DC, six size D (R20) batteries

Battery	FM recording
Sony SUM-1 (NS)	Approx. 18 hours
Sony AM1 (N) alkaline	Approx. 30 hours

Dimensions	Approx. 605 x 195 x 160 mm (w/h/d) (23-7/8 x 7-3/4 x 6-3/8 inches)
Weight	Approx. 4.5 kg (9 lb 15 oz) incl. batteries
Accessory supplied	AC power cord (1)
Optional accessories	Sony "MDR" headphones series Head demagnetizer HE-5C Cleaning kit KK-4

Design and specifications subject to change without notice.

Troubleshooting Guide

The unit does not operate

- No batteries in battery compartment.
- Batteries installed incorrectly.
- Weak battery. Replace all batteries.
- The AC power cord is not connected.

Cassette cannot be inserted

- Cassette is being inserted improperly.
- ▶ is depressed.

● cannot be depressed.

- No cassette in the cassette holder.
- The inserted cassette has its tab removed; cover the tab slot with plastic tape, or use another cassette.

Tape does not move

- PAUSE is depressed.
- Weak battery. Replace all batteries.

No sound from speakers.

- Headphones are plugged in.
- The VOLUME control is turned down completely.
- The FUNCTION selector setting is incorrect.

▶ cannot be depressed.

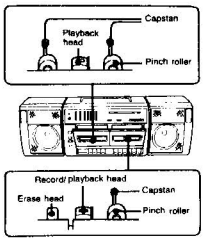
The tape is wound completely to the right reel. (deck B)

No audio from one channel or unbalanced left and right volume

Incorrect setting of the BALANCE control.

Sound drop-outs, loss of high frequencies, or excessive noise.

- Dirty heads. Clean the illustrated portions with a cleaning tip slightly moistened with cleaning fluid or alcohol.
- Demagnetize the heads and all metal parts in the tape path with a commercially available head demagnetizer.



Printed in Korea

SONY

3-753-269-21 (1)

Radio Cassette-Corder

CFS-W450

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

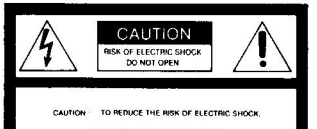
Owner's Record

The model and serial numbers are located on the rear. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. CFS-W450 Serial No.

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
NO USER SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Sony Corporation © 1991

Precautions

Notes on Power Sources

- Use six size D (R20) batteries or, for AC operation (120 V AC only), the supplied AC power cord.
- Remove batteries when not in use to avoid damage from battery leakage.
- Unplug the unit from the wall outlet when it is not to be used for an extended period of time.

Handling the Unit

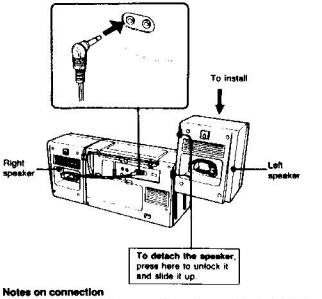
- Avoid exposure to temperature extremes, direct sunlight, dust, or mechanical shock.
- Should anything fall into the unit, immediately unplug the unit (or remove batteries) and have it checked by qualified personnel before operating again.
- Do not lift the handle when the telescopic antenna is extended.
- When the unit has not been used for a long time, set it in the playback mode for several minutes before inserting a cassette.

Note on Cassette

Use of cassettes longer than 90 minutes is not recommended except for long continuous recording or playback.

If you have any question or problem concerning your unit, please consult your nearest Sony dealer.

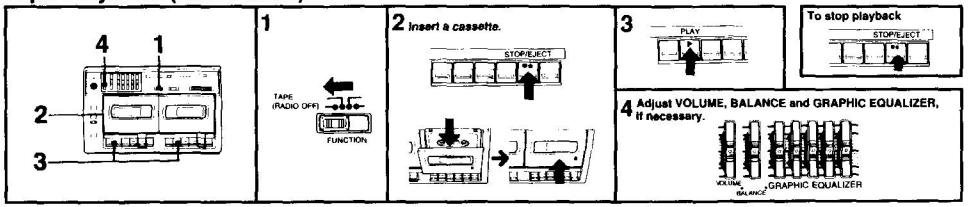
Connecting Speakers



Notes on connection

- Turn the power off before connecting or disconnecting the speaker cords to avoid the speaker's being damaged by a sudden burst of sound.
- Connect the speaker cord of the right speaker to the RIGHT jack and the left speaker to the LEFT jack.

Tape Playback (either deck)



When you want to:	Press*
wind tape rapidly for ▶ direction	▶▶
rewind tape rapidly for ◀ direction	◀◀
stop playback/recording	■▲
release ▶▶ or ◀◀	■▲
pause playback/recording	■
release pause	■

Be sure to press ■▲ to release ▶▶ or ◀◀ at the tape end of each direction.

Listening to or recording from other component (CD player, e.g.)
Connect the other component to the CD/LINE jacks of this unit with the connecting cord *RK-C74A (optional) and set the FUNCTION* selector to CD/LINE IN.

For private listening
Connect stereo headphones to PHONES jack.

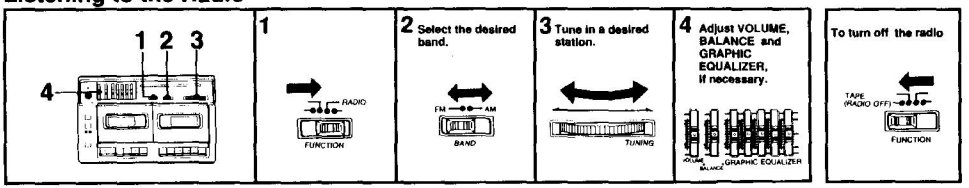
Notes
- During playback, avoid pressing the PLAY/REW/FF (◀◀/▶▶) buttons of the other deck since the playback speed may vary.
- When both decks A and B are in the playback mode, only playback from deck B will be audible.

When the unit is in use
DIRECTION indicator/OPR/BATT (operation/battery) indicator lights.
FWD: Lights while playing the front side on deck A.
REV: Lights while playing the reverse side on deck A.
Intensity of glow shows battery level.

To select playback mode of deck A
Set the DIR MODE (direction mode) selector to *the desired position.*
- ⇄ To play back both sides of a cassette once, starting from the front side to the reverse side.
- ⇆ To play back both sides of a cassette repeatedly.

On the side of the tape to be played on deck A
After you press ▶ the unit will play the front (FWD lights) and then reverse (REV lights) side of tape continuously.
Slide DIR (direction) switch to ‖ to change the *side of the cassette.*

Listening to the Radio



Antenna adjustment

FM

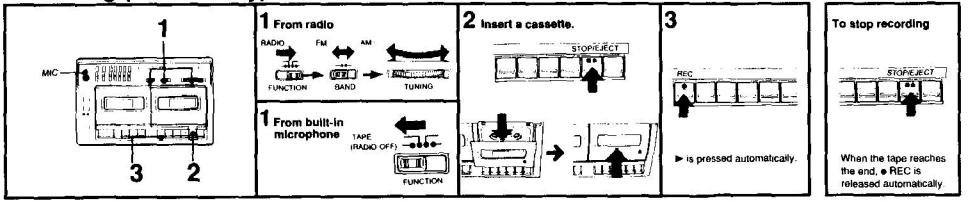
AM

Graphic equalizer adjustments
These are the frequency coverages of the equalizer controls.

100 Hz:	boosts or cuts bass.
300 Hz:	speaking voice, middle frequencies of instrumental music.
1 kHz:	provides more presence of vocals.
3 kHz:	overall brightness of sound.
10 kHz:	effects the general treble. Lower to reduce high frequency noise.

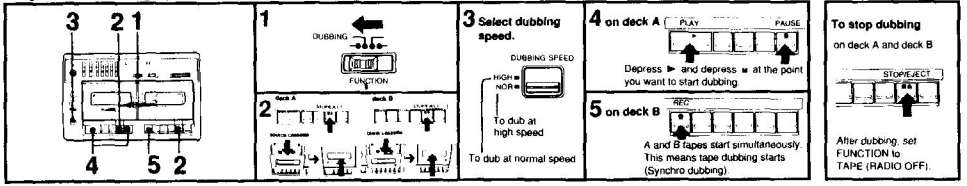
Raise control to emphasize a frequency band, lower *to deemphasize.*

Recording (deck B only)



Notes on recording
- *While recording, avoid pressing the* PLAY/◀◀/▶▶ buttons of deck A to assure stable recording.
- If a whistling noise is heard during AM recording, which was inaudible before the record button is depressed, set ISS/F-M MODE on the rear panel to 1, 2, or 3 depending on which one best reduces the noise.
- *While recording from the built-in radio, you* can listen to the program through speakers or headphones. While recording with the built-in microphone, the sound being recorded can be monitored through headphones.
- No volume adjustment is necessary. Recording level is automatically set. Volume adjustments will not affect recording level. Any setting of the GRAPHIC EQUALIZER control does not affect recording level.

Tape Dubbing (deck A to deck B)



Notes on dubbing
- *If deck A's tape finishes first, deck B will* continue playing. (Manually press ■▲ to release locked buttons).
- If deck B's tape finishes first, deck A will continue playing.
- Do not change the dubbing speed during dubbing. As this causes excessive wow and flutter.

To prevent accidental erasure
Break off the tab corresponding to the side which has been recorded.
Recording on that side will be protected